



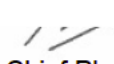
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**Item No. 9.1.1**  
**Environment and Sustainability Standing Committee**  
**October 1, 2015**

**TO:** Chair and Members of Environment & Sustainability Standing Committee

**SUBMITTED BY:**

ORIGINAL SIGNED

  
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Bob Bjerke, Chief Planner and Director, Planning and Development

**DATE:** September 18, 2015

**SUBJECT:** Update on the Solar City 2.0 program

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### INFORMATION REPORT

#### ORIGIN

March 31, 2015 Regional Council – 11.1.7 Solar City Pilot Program Summary, Staff Recommendation Report dated January 14, 2015.

#### LEGISLATIVE AUTHORITY

Under the HRM Charter, Section 79(1)(ad) The Council may expend money required by the Municipality for a system for the supply or distribution of electricity, gas, steam or other sources of energy.

#### BACKGROUND

On March 31, 2015, after a successful two year pilot project, Halifax Regional Council approved the creation of a three-year program, Solar City 2.0.

11.1.7 Solar City Pilot Program Summary

Motion passed that Halifax Regional Council:

1. Approve the continuation of the Solar City Program for three years at no direct net cost to HRM;
2. Increase the budget for project account CD990001 Solar City Program by \$13,112,700 with funding as indicated in the Financial Implications section of the January 14, 2015 staff report;
3. Endorse the project initiation to include solar photovoltaic, solar air, and solar thermal technologies;
4. Direct staff to supply an annual report on the Solar City program; and
5. Direct staff to implement the recommendations from the Grant Thornton report on the pilot project.

## **DISCUSSION**

The Solar City Pilot Program has come to a close and staff has started the development of the Solar City 2.0 Program by consulting with stakeholders, addressing capacity issues, and creating clear program objectives.

### **Solar City Pilot Program Wrap-up**

FCM Reporting is nearing completion. The financial audit of the pilot program was completed August 26 and 27, 2015 and a debenture report was submitted to Fintrack August 31, 2015. Staff has received an Environmental Results Report from Green Power Labs, and has compiled lessons learned from key stakeholders. Required signatures for the completed reporting package will be requested upon Council approval of the debenture report. The estimated submission date to FCM is September 30, 2015 for disbursement of the grant and loan November 30, 2015.

The pilot program has officially closed, and all invoices have been submitted. No remaining properties are pending for billing, and all rebates have been requested from Efficiency NS. Staff has developed a Case Study on the High Hope Housing Co-op, a participant in the pilot program. A draft is complete and under review.

The question of data ownership is being addressed in consultation with HRM Legal Services. HRM is establishing data ownership and access rights to the pilot's monitoring data based on a legal opinion received September 4, 2015.

HRM is partnered with Innovacorp, Dalhousie University, NSCC and Thermo Dynamics Ltd. to provide a set of Solar City data for use in their Hackathon: Smart Energy App Challenge, taking place in Halifax September 26 and 27, 2015.

### **Stakeholder Consultation**

Stakeholder consultations have been initiated with Nova Scotia Power, Nova Scotia Department of Energy, Efficiency Nova Scotia, Clean Foundation, industry and academia.

Topics being explored include:

- Logistics and feasibility of Solar PV and net metering;
- Enabling solar for low and mid-low income homeowners, affordable housing, and non-profits;
- Funding options including grants, rebates and partnerships;
- Program administration; and
- Database development.

### **Capacity Building**

A three-month term has been filled to assist with pilot program wrap-up and Solar City 2.0 program development. The Energy Specialist position (fulltime, permanent) will be posted in early October.

Dalhousie Engineering students will be conducting techno-economic analysis and implementation planning for the second stage of Solar City: PV, Solar Air, and Solar Water Hybrids. This project will consider how two or more of these systems could work in one home.

## **Establishing Clear Objectives**

In order for the program to be successful, it requires the establishment of clear objectives that it can be measured against. These objectives integrate direction received from Council on March 31, 2015 as well as feedback from stakeholder consultations.

To ensure the Solar City 2.0 remains cost-neutral to the municipality and the general tax base, staff is engaging with key stakeholders to explore funding options. As a result, there has been a strong interest in developing programming to support low and mid-low income homeowners, affordable housing units, and non-profits. Staff is researching existing programs and possible partnerships, including potential collaboration with the provincial Home Warming program or Housing Nova Scotia's Residential Rehabilitation Assistance Program (RRAP). Staff requires information on rebate amounts and availability in order to ensure the solar installations have a reasonable return on investment. Efficiency NS plans to announce rebate amounts in October. Staff is working to determine if any grants will be available, which will be contingent on the design of the program.

Staff is incorporating lessons learned from the pilot program into the development of the new program's objectives. Topics being considered include:

- Resolving tendering issues and the misperception of having single-sourced;
- Requiring monitoring systems on all installations and strong data sharing agreements with academic institutions and others interested in the resulting data;
- Reviewing administrative steps to optimize efficiency;
- Improving the communication strategy to engage and educate homeowners;
- Identifying a clear program purpose;
- Ensuring program participation (ROI, access to financing, interest, pre-screening); and
- Establishing measurable outcomes to gauge success.

## **Next Steps**

### Fall 2015

- Submit Solar City Pilot Program report to FCM;
- Receive disbursement from FCM;
- Hire Energy Specialist;
- Receive information on available rebates and grants, conduct high level financial analysis;
- Determine the incorporation of efficiency work as a component of the program;
- Determine the delivery of solar home assessments and refine the home assessment template as required; and
- Complete program development.

### Winter 2015

- Write and release Requests for Proposals for solar technologies and contractors;
- Hire two three-year terms to administer the program;
- Improve internal processes related to finance and permitting; and
- Once contracts are awarded, open registration to the public.

Spring 2016

- Host a Solar Fiesta to kick off the program and encourage registration in early spring;
- Begin home assessments of registrants; and
- Complete contracts and begin installations.

### **FINANCIAL IMPLICATIONS**

There are no financial implications to this information report.

### **COMMUNITY ENGAGEMENT**

Community engagement was not required for this information report. Staff is engaging with key stakeholders for the development of the Solar City 2.0 Program.


### **ATTACHMENTS**

None.

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A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.php> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

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